

Week 2: Python Basic Exercises

Provide the file including successfully executable codes for the following tasks:

1. Write a program that prints "Hello, World!" to the console.
2. Calculate the area of a rectangle given its length and width.
3. Convert temperature from Celsius to Fahrenheit and vice versa.
4. Create a list of numbers and print the sum of all the elements.
5. Write a program to check if a given number is even or odd.
6. Generate a random number between 1 and 100 and ask the user to guess it.
7. Write a function to check if a given string is a palindrome.
8. Calculate the factorial of a given number.
9. Write a program to find the largest element in a list.
10. Create a simple calculator that can perform addition, subtraction, multiplication, and division.
11. Write a function to find the square root of a number using Newton's method.
12. Reverse a given list without using the `reverse()` method.
13. Write a program to find all the prime numbers between 1 and 100.
14. Calculate the Fibonacci sequence up to a given number.
15. Write a function to count the number of vowels in a given string.
16. Check if a given year is a leap year.
17. Remove duplicates from a list without using sets.
18. Write a program to sort a list of numbers using bubble sort.
19. Create a dictionary of names and ages, and print the name of the oldest person.
20. Write a program to find the least common multiple (LCM) of two numbers.

Good Luck!!!